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## C-A OPERATIONS PROCEDURES MANUAL

### ATTACHMENT

#### 4.120.52.b U-Upstream & V-Target (PEER 23) Gate Tests

C-A-OPM Procedures in which this Attachment is used.		
4.120.52		

#### Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: \_\_\_\_\_ *Signature on File* \_\_\_\_\_  
 Collider-Accelerator Department Chairman Date

V. Castillo

## 4.120.52.b U-Upstream & V-Target (PEER 23) Gate Tests

### PASS SEMI-ANNUAL ACCEPTANCE TEST PROTOCOL

Division A Software Filename and Checksum: Title: \_\_\_\_\_ Checksum: \_\_\_\_\_

Division B Software Filename and Checksum: Title: \_\_\_\_\_ Checksum: \_\_\_\_\_

#### Initial testing complete:

Test Team Leader's Name (Print): \_\_\_\_\_ Life Number: \_\_\_\_\_

Test Team Leader's Name (Sign): \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

#### Acceptance test procedure complete (following repairs and retesting if required):

Test Team Leader's Name (Print): \_\_\_\_\_ Life Number: \_\_\_\_\_

Test Team Leader's Name (Sign): \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

#### Test results reviewed by:

Safety Section Head's Name (Print): \_\_\_\_\_ Life Number: \_\_\_\_\_

Safety Section Head's Name (Sign): \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

#### Test results accepted by Radiation Safety Committee:

RSC Member's Name (Print): \_\_\_\_\_ Life Number: \_\_\_\_\_

RSC Member's Name (Sign): \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**1.1 CONDUCT** Visual check on **Peer 23** gates following Table-1, below

Gate	Micro Switch		Elec Wiring	Gate Box	Lights	Gate Functions			Verify all x's Corr.	Inspn O.K. Init.
	Align	Opern				Open	Self-Closing	Latch		
<b>UGE1</b>									<input type="checkbox"/>	
<b>UGI1</b>									<input type="checkbox"/>	
<b>VTGE</b>									<input type="checkbox"/>	

**Legend:** Tick = O.K.    x = Problem    N/A = Not Applicable

**Table 1: Summary of Physical Inspection of Peer 23 Gates**

**1.2 Test of Entry GATE at UGE1**

<input type="checkbox"/>	<b>VERIFY STATION PLACE</b>	Entry Gate at <b>UGE1</b> has been inspected One Personnel <b>inside</b> gate <b>PEER 23</b> in <b>Controlled Access (MODE 16)</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>PEER 23</b> is in <b>Controlled Access</b>	<b>MODE 16</b>
<input type="checkbox"/>	<b>VERIFY OPEN</b>	The <b>Exterior</b> gate box <b>Controlled Access</b> light is Gate <b>UGE1</b> with <b>Simultaneous Release</b> and <b>#6 CA Key</b>	<b>ON</b>
<input type="checkbox"/>	<b>VERIFY</b>	Simultaneous Release <b>Buzzer</b>	<b>SOUNDS</b>
<input type="checkbox"/>	<b>VERIFY</b>	Gate <b>UGE1</b> is	<b>OPEN</b>
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>OPEN</b>
	<b>HOLD</b>	The Electric Strike micro switch	<b>MADE</b>
	<b>HOLD</b>	Both of the gate micro switches	<b>MADE</b>
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>NOT RESET</b>
	<b>RELEASE</b>	Div A micro switch	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> indicates	<b>DIV A ≠ DIV B</b>
	<b>HOLD</b>	Both of the gate micro switches	<b>MADE</b>
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>NOT RESET</b>
	<b>RELEASE</b>	Div B micro switch	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> indicates	<b>DIV A ≠ DIV B</b>
	<b>HOLD</b>	Both of the gate micro switches	<b>MADE</b>
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>NOT RESET</b>
	<b>RELEASE</b>	The Electric Strike micro switch	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>OPEN</b>
	<b>CLOSE</b>	The gate	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>NOT RESET</b>
	<b>ATTEMPT</b>	Remote <b>reset</b> from <b>MCR</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	<b>RESET</b>
	<b>OPEN</b>	Gate from <b>inside</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	<b>NOT RESET</b>
	<b>CLOSE</b>	The gate	
	<b>PLACE</b>	<b>PEER 23</b> in <b>Restricted Access (Mode 8)</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>PEER 23</b> is in <b>Restricted Access</b>	<b>MODE 8</b>
<input type="checkbox"/>	<b>VERIFY</b>	The <b>Exterior</b> gate box <b>Restricted Access</b> light is	<b>ON</b>
	<b>OPEN</b>	Gate <b>UGE1</b> from gate box with the <b>Zero key</b>	
<input type="checkbox"/>	<b>VERIFY</b>	Gate <b>UGE1</b> is	<b>OPEN</b>
	<b>OPEN</b>	Gate <b>UGE1</b> with the <b>#6 RC CA key</b>	
<input type="checkbox"/>	<b>VERIFY</b>	Gate <b>UGE1</b> is	<b>OPEN</b>
	<b>CLOSE</b>	The gate	

	<b>PLACE</b>	<b>PEER 23</b> in <b>Safe Access (Mode 2)</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>PEER 23</b> is in <b>Safe Access</b>	<b>MODE 2</b>
<input type="checkbox"/>	<b>VERIFY</b>	The <b>Exterior</b> gate box <b>Controlled Access</b> light is	<b>ON</b>
	<b>OPEN</b>	Gate <b>UGE1</b> with <b>Simultaneous Release</b> and <b>Zero key</b>	
<input type="checkbox"/>	<b>VERIFY</b>	Attempt to open gate <b>UGE1</b> with <b>Simultaneous Release</b> and <b>Zero key</b>	<b>FAIL</b>
	<b>OPEN</b>	Gate <b>UGE1</b> with <b>Simultaneous Release</b> and <b>#6 CA Key</b>	
<input type="checkbox"/>	<b>VERIFY</b>	Gate <b>UGE1</b> is	<b>OPEN</b>
	<b>CLOSE</b>	Gate <b>UGE1</b>	

- ☐ Check for acceptance of Test of Entry Gate at UGE1

### 1.3 Test of GATE at UGI1

<input type="checkbox"/>	<b>VERIFY</b>	Gate at <b>UGI1</b> has been inspected	
	<b>PLACE</b>	<b>PEER 23</b> in <b>Controlled Access (MODE 16)</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>PEER 23</b> is in <b>Controlled Access</b>	<b>MODE 16</b>
<input type="checkbox"/>	<b>VERIFY</b>	The gate box <b>Controlled Access</b> light is	<b>ON</b>
	<b>OPEN</b>	Gate <b>UGI1</b> with <b>Simultaneous Release</b> and <b>#6 CA Key</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>Simultaneous Release Buzzer</b>	<b>SOUNDS</b>
<input type="checkbox"/>	<b>VERIFY</b>	Gate <b>UGI1</b> is	<b>OPEN</b>
<input type="checkbox"/>	<b>VERIFY</b>	MCR sees the gate is	<b>OPEN</b>
	<b>HOLD</b>	The Electric Strike micro switch	<b>MADE</b>
	<b>HOLD</b>	Both of the gate micro switches	<b>MADE</b>
<input type="checkbox"/>	<b>VERIFY</b>	MCR sees the gate is	<b>NOT RESET</b>
	<b>RELEASE</b>	Div A micro switch	
<input type="checkbox"/>	<b>VERIFY</b>	MCR indicates	<b>DIV A ≠ DIV B</b>
	<b>HOLD</b>	Both of the gate micro switches	<b>MADE</b>
<input type="checkbox"/>	<b>VERIFY</b>	MCR sees the gate is	<b>NOT RESET</b>
	<b>RELEASE</b>	Div B micro switch	
<input type="checkbox"/>	<b>VERIFY</b>	MCR indicates	<b>DIV A ≠ DIV B</b>
	<b>HOLD</b>	Both of the gate micro switches	<b>MADE</b>
<input type="checkbox"/>	<b>VERIFY</b>	MCR sees the gate is	<b>NOT RESET</b>
	<b>RELEASE</b>	The Electric Strike micro switch	
<input type="checkbox"/>	<b>VERIFY</b>	MCR sees the gate is	<b>OPEN</b>
	<b>CLOSE</b>	The gate with <b>Personnel</b> on <b>U-Up side</b>	
<input type="checkbox"/>	<b>VERIFY</b>	MCR sees the gate is	<b>NOT RESET</b>
<input type="checkbox"/>	<b>VERIFY</b>	The gate box Gate <b>Reset</b> light is	<b>OFF</b>
	<b>RESET</b>	The gate with <b>#7 Sweep key</b> at <b>U-Up</b> gate box	
<input type="checkbox"/>	<b>VERIFY</b>	MCR sees the gate is	<b>RESET</b>
<input type="checkbox"/>	<b>VERIFY</b>	The <b>U-Up</b> gate box Gate <b>Reset</b> light is	<b>ON</b>
	<b>OPEN</b>	The gate <b>without</b> <b>Simultaneous Release</b>	
<input type="checkbox"/>	<b>VERIFY</b>	MCR sees the gate is	<b>OPEN</b>
<input type="checkbox"/>	<b>VERIFY</b>	The <b>U-Up</b> gate box Gate <b>Reset</b> light is	<b>OFF</b>
	<b>CLOSE</b>	The gate	

	<b>PLACE</b>	<b>PEER 23 in Safe Access (Mode 2)</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>PEER 23 is in Safe Access</b>	<b>MODE 2</b>
<input type="checkbox"/>	<b>VERIFY</b>	The gate box <b>Controlled Access</b> light is	<b>ON</b>
	<b>OPEN</b>	Gate <b>UGI1</b> with <b>Simultaneous Release</b> and <b>Zero key</b>	
<input type="checkbox"/>	<b>VERIFY</b>	Attempt to open gate <b>UGI1</b> with <b>Simultaneous Release</b> and <b>Zero key</b>	<b>FAIL</b>
	<b>OPEN</b>	Gate <b>UGI1</b> with <b>Simultaneous Release</b> and <b>#6 CA Key</b>	
<input type="checkbox"/>	<b>VERIFY</b>	Gate <b>UGI1</b> is	<b>OPEN</b>
	<b>CLOSE</b>	Gate <b>UGI1</b>	

☐ **Check for acceptance of Test of Gate at UGI1**

#### 1.4 Test of Entry GATE at VTGT

<input type="checkbox"/>	<b>VERIFY</b>	<b>Entry Gate VTGE</b> has been inspected	
	<b>PLACE</b>	<b>PEER 23 in Controlled Access (MODE 16)</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>PEER 23 is in Controlled Access</b>	<b>MODE 16</b>
<input type="checkbox"/>	<b>VERIFY</b>	The <b>Exterior</b> gate box <b>Controlled Access</b> light is	<b>ON</b>
	<b>OPEN</b>	Gate <b>VTGE</b> with <b>Simultaneous Release</b> and <b>#6 CA Key</b>	
<input type="checkbox"/>	<b>VERIFY</b>	Simultaneous Release <b>Buzzer</b>	<b>SOUNDS</b>
<input type="checkbox"/>	<b>VERIFY</b>	Gate <b>VTGE</b> is	<b>OPEN</b>
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>OPEN</b>
	<b>HOLD</b>	The Electric Strike micro switch	<b>MADE</b>
	<b>HOLD</b>	Both of the gate micro switches	<b>MADE</b>
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>NOT RESET</b>
	<b>RELEASE</b>	Div A micro switch	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> indicates	<b>DIV A ≠ DIV B</b>
	<b>HOLD</b>	Both of the gate micro switches	<b>MADE</b>
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>NOT RESET</b>
	<b>RELEASE</b>	Div B micro switch	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> indicates	<b>DIV A ≠ DIV B</b>
	<b>HOLD</b>	Both of the gate micro switches	<b>MADE</b>
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>NOT RESET</b>
	<b>RELEASE</b>	The Electric Strike micro switch	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>OPEN</b>
	<b>CLOSE</b>	The gate	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees the gate is	<b>NOT RESET</b>
	<b>RESET</b>	The gate with <b>#7 Sweep key</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	<b>RESET</b>
	<b>OPEN</b>	Gate <b>with</b> Simultaneous Release	
	<b>ABORT</b>	Simultaneous Release <b>with</b> gate <b>open</b>	
<input type="checkbox"/>	<b>VERIFY</b>	<b>MCR</b> sees Div A <input type="checkbox"/> and Div B <input type="checkbox"/>	<b>NOT RESET</b>
	<b>CLOSE</b>	The gate	

- |                          |   |   |               |
|--------------------------|---|---|---------------|
|                          | <b>PLACE</b>  | <b>PEER 23</b> in <b>Restricted Access (Mode 8)</b>                                   |               |
| <input type="checkbox"/> | <b>VERIFY</b>   | <b>PEER 23</b> is in <b>Restricted Access</b>   | <b>MODE 8</b> |
| <input type="checkbox"/> | <b>VERIFY</b>   | The <b>Exterior</b> gate box <b>Restricted Access</b> light is                        | <b>ON</b>     |
|                          | <b>OPEN</b>   | Gate <b>VTGE</b> from gate box with the <b>Zero key</b>                               |               |
| <input type="checkbox"/> | <b>VERIFY</b>   | Gate <b>VTGE</b> is   | <b>OPEN</b>   |
|                          | <b>OPEN</b>   | Gate <b>VTGE</b> with the <b>#6 RC CA key</b>   |               |
| <input type="checkbox"/> | <b>VERIFY</b>   | Gate <b>VTGE</b> is   | <b>OPEN</b>   |
|                          | <b>CLOSE</b>  | The <b>gate</b>   |               |
|                          |   |   |               |
|                          | <b>PLACE</b>  | <b>PEER 23</b> in <b>Safe Access (Mode 2)</b>   |               |
| <input type="checkbox"/> | <b>VERIFY</b>   | <b>PEER 23</b> is in <b>Safe Access</b>   | <b>MODE 2</b> |
| <input type="checkbox"/> | <b>VERIFY</b>   | The <b>Exterior</b> gate box <b>Controlled Access</b> light is                        | <b>ON</b>     |
|                          | <b>OPEN</b>   | Gate <b>VTGE</b> with <b>Simultaneous Release</b> and <b>Zero key</b>                 |               |
| <input type="checkbox"/> | <b>VERIFY</b>   | Attempt to open gate <b>VTGE</b> with <b>Simultaneous Release</b> and <b>Zero key</b> | <b>FAIL</b>   |
|                          | <b>OPEN</b>   | Gate <b>VTGE</b> with <b>Simultaneous Release</b> and <b>#6 CA Key</b>                |               |
| <input type="checkbox"/> | <b>VERIFY</b>   | Gate <b>VTGE</b> is   | <b>OPEN</b>   |
|                          | <b>CLOSE</b>  | Gate <b>VTGE</b>  |               |
|                          |   |   |               |
| <input type="checkbox"/> | <b>Check for acceptance of Test of Entry Gate at VTGT</b> |   |               |

#### END OF TEST PROCEDURE

**TTL: Sign for completion of initial testing:** \_\_\_\_\_

**Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**TTL: Sign for completion of final testing:** \_\_\_\_\_

**Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_